

**VIRGINIA OFFSHORE ENERGY DEVELOPMENT
LAW AND POLICY REVIEW AND RECOMMENDATIONS
Report #2**

**Evaluation of Implementation of Virginia Laws to Address Coastal Impacts of
Potential Energy Development Activities**

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Environmental Law Institute**

**for the
Virginia Coastal Zone Management Program**

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I. Virginia Law & Policy

Virginia has a number of laws and policies with applicability to potential offshore energy development and control of impacts on Virginia's environment. In addition to the recent Commonwealth Energy Policy, which directs Virginia agencies and political subdivisions to act consistently with the policy "where appropriate," these laws and policies provide authority for review of energy project approvals on a case-by-case basis. However, they also contain gaps.

Virginia's Coastal Zone Management Program

1) *Energy facilities.* The federal Coastal Zone Management Act provides that each state's coastal management program shall include, among other elements, "a planning process for energy facilities likely to be located in, or which may significantly affect, the coastal zone, including a process for anticipating the management of the impacts resulting from such facilities."¹ Virginia's coastal management program approved in 1986 focuses on four types of energy facilities where these are of "such size or magnitude of impact to make them subject to state review through the federal environmental impact statement process:"

- (1) Electric generating facilities of 100 megawatts or more and transmission lines of 100 kilovolts or more, or either,
- (2) Plants for processing or refining petroleum or natural gas,
- (3) Onshore facilities for the support of outer continental shelf *oil and gas* exploration and development, and
- (4) Coal exporting piers subject to either state or federal EIS processes.²

This list did not specifically anticipate *electric* power generation facilities located offshore (wind, wave, etc.), nor facilities that generate or convey lesser amounts of power, nor did it anticipate liquefied natural gas (LNG) facilities. The reference to outer continental shelf energy facilities was limited to onshore support facilities for oil and gas on the OCS. Virginia should consider revising the coastal management program's review processes in the context of the energy development activities now anticipated by the Commonwealth. Defining this process could improve Virginia's readiness for offshore activities.

2) *Enforceable Policies.* Virginia's coastal management enforceable policies referenced in the coastal program serve as the basis for federal "consistency" review under the CZMA.³ Consistency review offers Virginia's main opportunity to review and seek to impose conditions on federally-authorized activities occurring on the OCS and the coastal zone. The enforceable policies recognized by NOAA consist of:

¹ 16 U.S.C. §1455(d)(2)(H).

² U.S. Department of Commerce and Virginia Department of Environmental Quality, Virginia Coastal Resources Management Program, Chap. VII.

³ 16 U.S.C. §1456(c).

- Fisheries management – administered by the Virginia Marine Resources Commission (Va. Code §28.2-200 thru §28.2-713) and the Department of Game and Inland Fisheries (Va. Code §29.1-100 thru §29.1-570).
- Subaqueous lands management – administered by the Virginia Marine Resources Commission (Va. Code §28.2-1200 thru §28.2-1213).
- Wetlands management – administered by the Virginia Marine Resources Commission (Va. Code §28.2-1300 thru §28.2-1320), and the Virginia Water Protection Permit program administered by the Department of Environmental Quality (Va. Code §62.1-44.15.5 and the Water Quality Certification requirements of Section 401 of the federal Clean Water Act).
- Dunes management – administered by the Virginia Marine Resources Commission (Va. Code §28.2-1400 thru §28.2-1420).
- Nonpoint source pollution control – administered by the Department of Conservation and Recreation (Va. Code §10.1-560 *et seq.*).
- Point source pollution control – administered by the State Water Control Board (Va. Code §62.1-44.15).
- Shoreline sanitation – administered by the Department of Health (Va. Code §32.1-164 thru §32.1-165).
- Air pollution control – administered by the State Air Pollution Control Board (Va. Code §10-1.1300).
- Coastal lands management – administered by the Department of Conservation and Recreation's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater Virginia (Chesapeake Bay Preservation Act, Va. Code §10.1-2100 thru §10.1-2114 and regulations, Virginia Administrative Code 9 VAC 10-20-10 *et seq.*)⁴

Virginia advisory policies (that are not binding for consistency review purposes) include policies dealing with coastal natural resource areas, coastal natural hazard areas, waterfront development areas, public beaches, the Virginia outdoors plan, parks and natural areas and wildlife management areas, waterfront recreation land acquisition and facilities, and waterfront historic properties.⁵

The Virginia Department of Environmental Quality (DEQ) handles consistency review for the Commonwealth.

Virginia Marine Resources Commission Permit Programs

The Virginia Marine Resources Commission (VMRC) has jurisdiction over the Commonwealth's territorial sea (to three miles),⁶ and it issues three kinds of permits dealing with encroachment upon and use of lands and waters that are potentially relevant to energy facilities (generating facilities, pipelines, transmission lines) located in state

⁴ Virginia Department of Environmental Quality, Enforceable Policies Comprising Virginia's Coastal Resources Management Program, <http://www.deq.virginia.gov/eir/federal.html>

⁵ Id.

⁶ Va. Code §28.2-101.

waters or the coastal zone. These are all part of Virginia's approved coastal management program, and were recently updated:⁷

- subaqueous lands
- tidal wetlands
- coastal primary sand dunes

Permit applicants must complete a Joint Permit Application (JPA). The application addresses the three VMRC permits, the Corps of Engineers' federal §10/404 permits under federal law, the DEQ's water protection permit and water quality review of federal permits under §401 of the federal Clean Water Act, and review and permitting by local government wetlands boards. Placement of facilities in state waters and on state subaqueous lands will trigger permitting.

The subaqueous lands program provides for granting or denying permits for use of state-owned bottomlands. The VMRC must consider "the public and private benefits of the proposed project" consistent with the "public trust" doctrine and Article XI §1 of the Virginia Constitution. VMRC must also consider the effect of the proposed project on:

- "other reasonable and permissible uses of state waters and state-owned bottomlands;
- marine and fisheries resources of the Commonwealth;
- tidal wetlands [except as separately determined under wetlands permitting];
- adjacent or nearby properties;
- water quality; and
- submerged aquatic vegetation."⁸

Under its guidelines, the VMRC also considers whether or not the project is water-dependent, and must consider alternatives for reducing impacts.⁹ Royalties must be charged unless otherwise prohibited.¹⁰ Maintenance and removal of facilities upon abandonment is required, although public service corporations may abandon cables, conduits and pipes upon prior approval by VMRC.¹¹ In addition to permitting, VMRC may grant easements and leases with the approval of the Governor and Attorney General outside of Baylor grounds (which requires an act of the General Assembly). Easements for public service corporations and interstate natural gas companies are granted for a payment of \$100 and for 40 years.¹²

The VMRC's Subaqueous Guidelines, Section V, are relevant to the siting and configuration of energy facilities in or traversing Virginia's subaqueous lands. These guidelines are used by VMRC in applying the statutory tests. The guidelines were

⁷ <http://www.mrc.state.va.us/regulations/hm-permits.shtml>

⁸ Va. Code §28.2-1205.A.

⁹ http://www.mrc.state.va.us/regulations/subaqueous_guidelines.shtml (Guidelines I.C.2).

¹⁰ Va. Code §28.2-1205.E.

¹¹ Va. Code §28.2-1209.

¹² Va. Code §28.2-1208.

submitted to NOAA as part of Virginia's Coastal Management Program's enforceable policies in 1986; but *November 2005 revisions were not submitted as an update*. The Guidelines specifically provide that "overhead and/or submarine crossings are *normally permitted* if reasonable measures are taken to protect aquatic resources and other uses of the waterway." Submarine crossings are evaluated in accordance with the following guidelines:

1. Submarine crossings should be designed such that a minimum of three feet of cover will be provided over the upper extremity of the submerged structure when placed in an area where fishing devices are normally employed.
2. Alteration of submerged aquatic vegetation, shellfish beds and wetlands should be minimized wherever possible in the planning and location of submerged structures.
3. Backfill material for submarine crossings should clean and serve to restore, as closely as possible, the depth and natural condition of the original bottom.
4. In general, directional drill methodologies are preferred over trenching.¹³

The recent application by Virginia Natural Gas for a pipeline crossing Hampton Roads, decided by the VMRC in March 2008, illustrates the kinds of evaluation that may be triggered by future energy development impacts from either electric cables from offshore generating facilities or pipelines for gas production wells on the OCS. The VMRC approved the permits, but required a substantial amount of directional drilling for the pipeline segments nearest the shorelines; the remainder was approved for dredging including sidecasting of the dredge material on state bottomlands.¹⁴

Tidal wetlands permitting is governed by Va. Code §28.2-1300 and is part of Virginia's approved coastal management program. The VMRC has adopted guidelines to assist in the decision process,¹⁵ and for compensatory mitigation.¹⁶ The goal of this law is to "preserve and prevent the despoliation and destruction of [tidal] wetlands while accommodating necessary economic development in a manner consistent with wetlands protection."¹⁷ The Wetlands Act vests wetland regulatory authority with local governments. The law creates a Wetlands Zoning Ordinance that any county, city, or town may adopt through creation of a wetlands board.¹⁸ (A similar approach applies to coastal dunes). The local wetlands board has jurisdiction over wetlands from the mean low water mark to the mean high water mark where no emergent vegetation exists and to 1.5 times the mean tide range where marsh is present.¹⁹ The Virginia Marine Resources Commission has jurisdiction over permitting of projects within state owned subaqueous

¹³ http://www.mrc.state.va.us/regulations/subaqueous_guidelines.shtm

¹⁴ VMRC, *Virginia Natural Gas* #07-1036 (March 25, 2008).

¹⁵ http://www.mrc.virginia.gov/regulations/wetlands_guidelines.pdf

¹⁶ 4 VAC 20-390-10 et seq.; <http://www.mrc.virginia.gov/regulations/bankguide.shtm>

¹⁷ VA. Code Ann. § 28.2-1302.

¹⁸ VA. Code Ann. § 28.2-1303.

¹⁹ Krista Trono, *An Analysis of the Current Shoreline Management Framework in Virginia: Focus on the Need for Improved Agency Coordination* 20 (Nov. 1, 2003) (unpublished report in partial fulfillment for the degree of M.A., University of Miami), *available at* <http://www.deq.state.va.us/coastal/documents/shorelin.pdf>.

lands seaward of the mean low water mark. VMRC also reviews proposed projects affecting wetlands, sand dunes, and beaches in localities that have not yet adopted the Wetland Zoning Ordinance.²⁰

In developing wetland regulations “the Commission shall consult with all affected state agencies. Consistent with other legal rights, consideration shall be given to the unique character of the Commonwealth’s tidal wetlands which are essential for the production of marine and inland wildlife, waterfowl, finfish, shellfish and flora; serve as a valuable protective barrier against floods, tidal storms and the erosion of the Commonwealth’s shores and soil; are important for the absorption of silt and pollutants; and are important for recreational and aesthetic enjoyment of the people and for the promotion of tourism, navigation and commerce.”²¹ Virginia has detailed guidelines for activities affecting dunes²² and barrier islands.²³ These include prohibitions on certain kinds of alterations, and requirements for permitting by VMRC or local wetlands boards or both.

In addition to these permitting programs, the VMRC has *some authority to define spatial uses of the waters and submerged lands*. It may establish areas off limits to fishing and use of particular types of equipment “to conserve and promote the seafood and marine resources of the Commonwealth”²⁴ and it may adopt habitat management regulations and guidelines.²⁵ It may also “following consultation with the U.S. Coast Guard and the U.S. Army Corps of Engineers” establish by regulation “state water safety zones and restricted areas within the tidal waters of the Commonwealth wherein public access shall be restricted or prohibited in the interest of public safety.” Such zones must be consistent with federal law.²⁶ It is not clear whether VMRC authority extends to the advance designation of particular areas for cable or pipeline rights-of-way or energy facilities or that existing law authorizes area-based zoning of submerged lands (except on a habitat or safety zone basis). The VMRC “may promulgate regulations and guidelines necessary to carry out” the function of Title 28.2.²⁷ This rulemaking authority may or may not allow it to designate areas for particular activities – such as preferred pipeline or transmission corridor routes.

The VMRC prepares a management plan for the ungranted shores of the sea, marsh and meadowlands.²⁸ It also prepares fisheries management plans.²⁹ Management areas have been set aside for submerged aquatic vegetation and for other habitat protection purposes.

²⁰ See VA. Code Ann. § 28.2-1302.

²¹ Va. Code § 28.2-1301.D.

²² http://www.mrc.virginia.gov/regulations/dune_guidelines.pdf

²³ 4 VAC 20-440-10, et seq. Barrier island policy.

²⁴ Va. Code §28.2-201 (regulatory authority).

²⁵ Va. Code §28.2-103, §28.2-209 et seq.

²⁶ Va. Code §28.2-106.2.

²⁷ Va. Code §28.2-103.

²⁸ Va. Code §28.2-1504.

²⁹ Va. Code §28.2-203.

Department of Game and Inland Fisheries (DGIF)

The DGIF may have significant issues to raise with regard to offshore energy projects. Recently in commenting on a draft Environmental Assessment issued by the Minerals Management Service in connection with the MMS's proposed rule for alternative energy facilities on the OCS, the DGIF recommended that there be "federal standardized avian monitoring and mitigation guidelines" applicable to such facilities.³⁰ It also sought guarantees that states could "impose additional requirements as needed."³¹ The DGIF is aware of numerous land birds, shorebirds, turtles, marine mammals and other living resources in the coastal zone that may be affected by OCS oil and gas as well as alternative energy developments, and has particular concern for the barrier islands and associated coastal systems on the eastern shore. The DGIF recommends numerous studies and information on limiting impacts to these habitats and species.³²

At this time, the DGIF cannot impose these requirements or guidelines on its own; it must either persuade a federal permitting agency to do so through comments on permits and environmental impact documents, or persuade other Virginia agencies (such as VMRC or the State Corporation Commission) to do so in the context of their permitting and licensing programs.

Virginia's Endangered Species Act is not incorporated into Virginia's approved coastal management program. It requires all Virginia boards and agencies to cooperate with DGIF in protecting endangered species. It does not provide for "incidental take" of protected species.³³

Sediment and Erosion Control

Permitting or general permitting for sediment and erosion control will be required for land disturbing activities, and for construction stormwater management as administered by the Department of Conservation and Recreation. The former is incorporated in the approved coastal management program.³⁴ Activities exempt from construction stormwater requirements include: oil and gas operations, land-disturbing activities that disturb less than one acre of land area except for land-disturbing activity exceeding an area of 2,500 square feet in jurisdictions subject to the Chesapeake Bay Preservation Area Designation and Management Regulations or activities that are part of a larger common plan that is one acre or greater of disturbance; and linear development projects, provided

³⁰ Virginia DEQ to Minerals Management Service, Alternative Energy and Alternate Uses, DEQ #08-157F (Sept. 4, 2008).

³¹ *Id.*

³² Virginia DEQ to Minerals Management Service, "Scoping Comments on the Interior Department's 5-year Outer Continental Shelf Oil and Gas Leasing Program," (Sept. 11, 2008).

³³ Va. Code §29.1-563 et seq. It applies only to animal species, not plants.

³⁴ Va. Code §10.1-563; §10.1-603 et seq; http://www.dcr.virginia.gov/soil_&_water/vsmp.shtml. However, the Erosion and Sediment Control program was last updated with NOAA in 1993, and the approved coastal program does not expressly address the VPDES construction stormwater aspects moved from DEQ to DCR in 2005. The regulations at 4 VAC 3-20-10, 50-60 et seq. have not been submitted to NOAA, although the remaining DEQ stormwater regulation at 9 VAC 25-31-120 was prepared for auto-incorporation in 2007.

that (i) less than one acre of land will be disturbed per outfall or watershed, (ii) there will be insignificant increases in peak flow rates, and (iii) there are no existing or anticipated flooding or erosion problems downstream of the discharge point.³⁵

Chesapeake Bay Preservation Act

Resource protection areas (RPAs) in Tidewater Virginia local jurisdictions include wetlands, perennial waters, tidal shoreline, 100-foot buffer areas, and other lands.³⁶ The CBPA is part of Virginia's approved coastal zone management program. It should be noted that Northampton County applies the CBPA to the Atlantic side as well as to the Bay side in its plans and ordinances. There are limitations that apply in the protection areas that can affect onshore facilities.

Local governments also retain some authority over "areas and dimensions of land, water, and air space" to be occupied by buildings, structures, and uses under Virginia's land use planning and zoning laws.³⁷ These authorities are not directly incorporated into Virginia's coastal zone management program, but may provide some means of controlling activities on shore that require building permits or zoning amendments..

Historic preservation

Viewshed elements may be considered by the Department of Historic Resources if federal activities or federally-licensed activities (undertakings) may affect properties listed or eligible for listing on the National Register of Historic Places. DHR recommendations are also provided to the State Corporation Commission and other state agencies empowered to conduct public interest reviews of projects within their jurisdiction.

Visual/scenic resources

The Department of Conservation and Recreation reviews projects that may affect scenic and recreational resources, but does not exercise permitting authority or veto authority with regard to such projects.

Local governments may provide for review of visual impacts in their planning and zoning and subdivision ordinances. The applicability of these ordinances to offshore energy facilities will depend upon whether there are facilities within the local jurisdiction that require some sort of permit approval or zoning change.

³⁵ Va. Code § 10.1-603.8.B.

³⁶ Va. Code § 10.1-2100 et seq.; 9 VAC 10-20-120 et seq.

³⁷ Va. Code § 15.2-2280.

Environmental Impact Review

Virginia law provides for environmental impact reports for “major state projects,” defined as land acquisition or state construction which costs \$500,000 or more.³⁸ This provision will not apply to most foreseeable energy development activities, as the Commonwealth will not likely be the project owner. So for the most part, environmental impact review, if any, will be either under the federal NEPA process in connection with federal permitting or OCS leasing activities, or in connection with DEQ’s review of certain energy licensing and certificate activities within the jurisdiction of Virginia’s State Corporation Commission, discussed below.

Virginia state law also provides for environmental impact assessment for oil and gas wells in tidewater Virginia. However, drilling in the Bay and within 500 feet of the shoreline of the Bay or tributaries is prohibited outright.³⁹ The law specifies the content of the assessment to be submitted by the applicant and the review process; the DEQ has adopted guidelines for the assessment.⁴⁰ These provisions offer examples of content, if the General Assembly were to adopt environmental assessment legislation applicable to landward and coastal effects of OCS natural gas and petroleum development, in addition to relying on NEPA.

State Corporation Commission

The State Corporation Commission, among many other functions, reviews applications to construct electric generating facilities for retail or wholesale power, transmission lines exceeding 138 kilovolts, and intrastate natural gas pipelines.⁴¹ (This jurisdiction does not extend beyond Virginia’s territorial waters). Although SCC regulation is complex and cannot be fully explored in the context of this report, several relevant features are discussed in this section where they appear particularly relevant to energy activities involving offshore and territorial waters. The Department of Environmental Quality (DEQ) is required to examine the environmental impact of energy generating facilities in connection with SCC reviews.⁴² The SCC and DEQ have a Memorandum of Agreement on coordinating environmental impact review of proposed electric generating plants and associated facilities.⁴³ The review process is not part of Virginia’s approved coastal management program, nor is the SCC’s authority to establish environmental conditions (discussed below).

In 2006 the General Assembly directed the State Corporation Commission and Secretary of Natural Resources to develop a proposal for coordinated review of permits for energy facilities subject to SCC licensing.⁴⁴ The resulting recommendations were enacted by the

³⁸ Va. Code §10.1-1188.

³⁹ Va. Code §62.1-195.1.

⁴⁰ 9 VAC 15-20-10 et seq.

⁴¹ <http://www.scc.virginia.gov/pue/resp.aspx>

⁴² Va. Code §§10.1-1186.2:1.B, C.

⁴³ Va. Code §§ 10.1-1186.2:1B, 56-46.1.G. PUE-2002-00315, MOA (August 14, 2002)

⁴⁴ Acts 2006, Ch. 939, Sec. 4.

General Assembly in 2007. They allow an applicant to request a pre-application process that will produce a plan that includes a list of the permits or other approvals likely to be required, a specific plan and preliminary schedule for the reviews, a plan for coordinating reviews and related public comment processes, and designation of points of contact in each agency or for the Commonwealth as whole to facilitate the coordination.⁴⁵

The SCC review of electric generating facilities and transmission corridors includes *evaluation of environmental factors*:⁴⁶

A. Whenever the Commission is required to approve the construction of any electrical utility facility,⁴⁷ *it shall give consideration to the effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact.* In order to avoid duplication of governmental activities, *any valid permit or approval* required for an electric generating plant and associated facilities issued or granted by a federal, state or local governmental entity charged by law with responsibility for issuing permits or approvals regulating environmental impact and mitigation of adverse environmental impact or for other specific public interest issues such as building codes, transportation plans, and public safety, whether such permit or approval is granted prior to or after the Commission's decision, shall be *deemed to satisfy the requirements of this section with respect to all matters that (i) are governed by the permit or approval or (ii) are within the authority of, and were considered by, the governmental entity in issuing such permit or approval, and the Commission shall impose no additional conditions with respect to such matters....* In every proceeding under this subsection, the Commission *shall receive and give consideration to all reports that relate to the proposed facility by state agencies concerned with environmental protection*; and if requested by any county or municipality in which the facility is proposed to be built, to local comprehensive plans.... Additionally, the Commission (i) shall consider the effect of the proposed facility on economic development within the Commonwealth and (ii) shall consider any improvements in service reliability that may result from the construction of such facility.

B. No electrical transmission line of 138 kilovolts or more shall be constructed unless the State Corporation Commission shall...determine that the line is needed and that the corridor or route the line is to follow will *reasonably minimize adverse impact on the scenic assets, historic districts and environment of the area concerned....* If the local comprehensive plan of an affected county or municipality designates corridors or routes for electric transmission lines and the line is proposed to be constructed outside such corridors or routes, in any hearing the county or municipality may provide adequate evidence that the existing planned

⁴⁵ Va. Code §56-46.1.H.

⁴⁶ Va. Code §§56-46.1.A, B.

⁴⁷ Va. Code §56-580D contains similar language to §56-46.1.A with respect to approval of “electric generating facilities.”

corridors or routes designated in the plan can adequately serve the needs of the company....⁴⁸

Thus, as to *electric generating and associated facilities* subject to SCC approval, the SCC cannot impose additional environmental requirements upon subjects that are within the purview of other agencies' permits or approvals. (This limitation does not apply to approval of transmission corridors). However, where an environmental issue is outside the subject area of such an agency permitting program – such as, perhaps, visual impacts – the SCC may impose such conditions. And where there is not a permit program – as, perhaps, with respect to protection of birds – the SCC may (but is not required to) impose conditions recommended by DEQ and Virginia state agencies (such as the DGIF) and by other parties to its proceedings.

The SCC's environmental protection authority is murkier where a permitting scheme exists but does not fully address a set of environmental issues, or where the record is unclear about whether a subject that is not directly addressed in a permit was, in fact, "considered by, the governmental entity in issuing such permit or approval." DEQ is required to identify for the SCC environmental permits and approvals and whether environmental issues are not governed by the permits or approvals or are not within the authority of and not considered by the issuing agency.⁴⁹ In *Application of Highland New Wind Development*, PUE-2005-00101 (Dec. 20, 2007), the SCC found that Highland County's conditional use permit under its zoning ordinance and comprehensive plan, considered property values, tourism, viewshed, height restrictions, setbacks, lighting, color of structures, fencing, security, erosion and sediment control, signage, access roads, and decommissioning, and hence no additional measures can be imposed by SCC. In the same order, it considered the monitoring and mitigation plan for bats and birds recommended by DGIF and adopted it with modifications.

Virginia law further prescribes that "When considering the environmental impact of any *renewable energy*...electrical utility facility, the Department [of Environmental Quality] shall consult with interested agencies of the Commonwealth that have expertise in natural resource management. The Department shall submit recommendations to the State Corporation Commission that take into account the information and comments submitted by such natural resource agencies concerning the potential environmental impacts of the proposed electric generating facility. The Department's recommendations shall include: (i) specific mitigation measures considered necessary to minimize adverse environmental impacts; (ii) any additional site-specific studies considered to be necessary; and (iii) the scope and duration of any such studies."⁵⁰

The SCC has rules that are meant to facilitate the review of applications for approval to construct electric generating facilities and incidental or associated facilities. These

⁴⁸ The SCC has "Guidelines of Minimum Requirements for Transmission Line Applications" (May 10, 1991). These do require some environmental impact disclosures.

⁴⁹ Va. Code §10.1-1186.2:1.C and the August 14, 2002, MOA between DEQ and SCC on coordinating environmental impact review for electric generating facilities.

⁵⁰ Va. Code §10.1-1186.2:1.B

require submittal to DEQ and the SCC of an analysis of the environmental impact of the project including at a minimum: air quality, water source, discharge of cooling water, tidal and nontidal wetlands, solid and hazardous wastes, natural heritage and threatened and endangered species, erosion and sediment control, archeological and historic, scenic, cultural or architectural resources, Chesapeake Bay Preservation Areas designated by the locality, wildlife resources, recreation, agricultural and forest resources, pesticide and herbicide use, geology and mineral resources, and transportation infrastructure.⁵¹

However, in July 2008, the Commission proposed new rules that would allow construction of electric generating facilities with a rated capacity of 5 MW or less upon filing in lieu of an application a letter to the SCC specifying the facility's location, size, and fuel type, provided that the facility complies with all other requirements of federal, state, and local law.⁵² If adopted, the proposal may mean that small renewable energy projects in the coastal zone will not have the automatic 'backstop' of DEQ/SCC review available under current regulations. Certainly it would not provide the data that serve as the basis for initiating DEQ review under the current system. It is not clear whether the SCC would still make environmental findings, consider recommendations and impose conditions, or whether the "all other requirements" means that only permitting provisions would apply directly.⁵³

The SCC in reviewing the construction of a pipeline for the transmission or distribution of natural gas, must "consider the effect of the pipeline on the environment, public safety, and economic development in the Commonwealth, and may establish such reasonably practical conditions as may be necessary to minimize any adverse environmental or public safety impact. In such proceedings, the Commission shall receive and consider all reports by state agencies concerned with environmental protection; and, if requested by any county or municipality in which the pipeline is proposed to be constructed, local comprehensive plans..."⁵⁴ Interstate natural gas pipelines, which may include those bringing OCS gas through Virginia for sale elsewhere, are regulated by FERC rather than by the SCC.

⁵¹ 20 VAC5-302-10 – 5-302-40.

⁵² Order for Notice and Comment, PUE-2008-00066 (July 25, 2008).

⁵³ Different SCC staff members interpreted the proposal differently. *Comments are due to SCC on or before September 26, 2008.* Other parts of the proposal focus the required environmental information for facilities above 5 MW in some instances more directly on permits and requirements and less on issues; this too may limit the usefulness of the review.

⁵⁴ Va. Code § 56-265.2:1.

II. Recommendations

Virginia can use its existing state laws, and its participation in federal environmental impact reviews under NEPA, coastal consistency, and water quality certification, to respond to most concerns related to offshore energy proposals on a case-by-case basis.

Nevertheless, Virginia can improve its readiness to address these issues. Energy development is a long term enterprise and will benefit from certainty and clarity in review and approach. A number of states have addressed offshore energy by initiating processes that support development of alternative energy facilities – such as Delaware and New Jersey on wind energy,⁵⁵ and Oregon on wave energy.⁵⁶ Virginia’s General Assembly thus far has preferred an approach that funds energy research through the Virginia Coastal Energy Research Consortium, and through legislative endorsement of potential development of natural gas in federal waters 50 miles or more off the coast and examination of the feasibility of offshore wind energy.⁵⁷ Virginia has also adopted a *voluntary* renewable energy portfolio standard of 4 percent renewables by 2012, 7 percent by 2017, and 12 percent by 2022, some of which may best be met by offshore wind energy.⁵⁸

This report is the first review of Virginia’s regulatory laws and policies that may affect offshore energy development, and it focuses on potential environmental impacts and accommodating multiple uses of the coastal zone in accordance with Virginia’s laws and policies conserving unique coastal resources.

Virginia should consider at least the following measures.

1. Enact legislation or by executive order or other means establish a single administrative process that coordinates the development and review of energy facilities in state and federal coastal waters.

Under current procedures, coordination of environmental impact review and coastal consistency for proposed facilities in federal waters will be carried out at DEQ. DMME has policy input under the Virginia Energy Plan. Evaluation of transmission facilities, facilities in state waters, and support facilities will be carried out by various state agencies including VMRC, DEQ, SCC, and others. Given the significant tradeoffs at stake from siting of energy facilities and transmission facilities (and supporting services) in both state and federal waters, and the competing uses for some of the marine waters

⁵⁵ The Delaware process leading to selection of the Bluewater Wind proposal is described above. In New Jersey, after a brief moratorium, the state initiated a competitive process to support offshore wind with up to \$19 million in state subsidies; the PSEG proposal for a 96 turbine wind farm 16 miles off the Jersey shore was recently selected, and will receive a \$4 million subsidy. N. Gronewold, “Wind Power: N.J. regulators approve planned offshore turbine farm,” E&E News, October 3, 2008. In each case, the environmental reviews have not yet been initiated.

⁵⁶ The collaborative planning process is described above.

⁵⁷ Va. Code § 67-300.

⁵⁸ The Virginia Energy Plan, at 162. The Virginia Energy Plan also notes that the Renewable Electricity Production Grant Program and Photovoltaic, Solar, and Wind Energy Utilization Grant Program established by Virginia legislation have not been funded.

and onshore areas, it may be desirable to establish a *primary coordinator* to get ahead of potential energy proposals. This might be designated by legislation, or might be specified administratively. The obstacles to offshore alternative energy development encountered thus far in some states have come from the lack of a straightforward path for planning, evaluation, and permit coordination. Thus, even in states supportive of offshore development, the review process has been uncertain. Designation of a coordinating entity or body could improve the clarity of the process without changing any of the underlying review standards or the jurisdiction of any of the Virginia agencies responsible for applying these standards. It might also serve as a guardian or advocate for the elements of the Commonwealth Energy Policy and Virginia Energy Plan as applied to the various permitting processes.

2. Map ocean and coastal resources and identify potential conflicting uses.

Investments in mapping ocean and coastal resources and conflicts could substantially aid in the protection of Virginia's coastal environment, and the identification of preferred areas and corridors where permitting could be readily carried out. This information could result in the avoidance of unnecessary delays and encourage appropriate project proposals. It could also help prevent the occurrence of inconsistent decisions on land that would prevent the development of suitable facilities or impede desired energy activities. Some of the necessary work is underway through Virginia's examination of its "blue infrastructure," some of the data are available in coastal GEMS, and some of the assessments are partly done in Virginia's Energy Plan, and the initial work of VCERC. The Virginia Institute of Marine Science has substantial technical capacity that could enable such work. The General Assembly, Virginia's Coastal Program, NOAA, and other funders may seek to provide further support for the necessary mapping and identification of uses. It is possible that the Department of Defense may be interested in this as well given its numerous facilities and uses for the offshore and onshore environment. This work could be undertaken under existing authority if funding could be found, or supported by appropriate federal funding (if available). One potential vehicle for this approach might be an Ocean SAMP along the lines of the Rhode Island proposal. Other state data-gathering approaches (which have from had difficulty in finding funding at times) include planning efforts under state laws in California and Oregon. Some excellent work to compile biological data geospatially has been done by The Nature Conservancy with support from Virginia's Coastal Program in 2008.

3. Enact legislation to prevent location of OCS oil & gas support facilities on the eastern shore without approval of the General Assembly and Governor.

Virginia's 2006 *Study of the Possibility of Exploring for Natural Gas in the Coastal Areas of the Commonwealth*, prepared in response to HJR 625, recommends that "no onshore facilities should be located on Virginia's eastern shore."⁵⁹ While it is possible that coastal consistency review and VMRC permitting requirements could prevent the construction of such facilities on case-by-case review, there is no current state law or enforceable policy that would ensure this result.

⁵⁹ Secretary of Commerce and Trade, *Study of the Possibility of Exploring for Natural Gas in the Coastal Areas of the Commonwealth*, House Document No. 22 (2006), at 40.

4. Authorize the designation of preferred corridors for electric transmission and gas pipelines through Virginia's coastal waters.

Current law provides limited ability to VMRC to do spatial planning and place areas off limits or designate preferred areas. Authority relates primarily to closing areas to fishing and boating activities, and protection of certain areas and structures. While VMRC might be able to assert authority to designate preferred corridors, legislation is probably needed. Such legislation could take either of two forms: (1) it could task VMRC (or another agency) in consultation to designate such corridors, and provide the factors to be taken into account in such designations, and define the consequences and implications of such designations; or (2) it could authorize an ocean planning/zoning program like that recently adopted by Massachusetts.

5. Adopt an enforceable provision that “energy generation and delivery systems...should be located so as to minimize impacts to pristine natural areas and other significant onshore natural resources, and as near to compatible development as possible.”⁶⁰

(A) This provision currently only requires discretionary deference by Virginia agencies and local subdivisions “where appropriate” and is not binding in any way for federal consistency purposes. This provision of the Commonwealth’s Energy Policy could, for offshore energy purposes at least, be re-enacted as a provision that applies directly and of its own force to offshore energy (in the same fashion as the Virginia Code provisions prohibiting oil and gas drilling in the waters of the Chesapeake Bay). Then it could be readily incorporated into the Virginia Coastal Management program as an enforceable policy.

(B) Virginia agencies with regulatory jurisdiction, such as VMRC, could adopt this provision through rulemaking as their way of implementing the Commonwealth’s Energy Policy. Coastal counties and cities could include it in their comprehensive plans and zoning ordinances.

(C) In order to apply this provision to federal consistency, Virginia could submit the Commonwealth’s Energy Policy or relevant provisions of it to NOAA for incorporation into the Virginia Coastal Management Program.

(D) Virginia should also consider adopting a requirement that all applicants engaged in energy development offshore or in the coastal zone have a duty to consult Coastal GEMS.⁶¹

(E) Specific sensitive lands could be protected more specifically. For example, over 28,500 acres of ungranted state lands on the eastern shore are covered by a management plan.⁶² The VMRC has the power to promulgate regulations to implement these policies to protect and preserve these lands, with the advice and assistance of other state and local bodies, and to resolve cases involving conflicting uses. VMRC should consider adding provisions that exclude incompatible energy activities. And Virginia should consider incorporating into the Virginia Coastal Program the VMRC management plan for these ungranted state lands in Accomack and Northampton Counties

⁶⁰ Va. Code §67-102.

⁶¹ <http://www.deq.virginia.gov/coastal/coastalgems.html>

⁶² 4 VAC 20-30-10 et seq.

6. Require directional drilling for bringing transmission pipelines and (possibly) electric lines ashore and protecting dunes, wetlands, barrier islands.

VMRC has the power to require directional drilling in determining whether to issue the appropriate permits, and such provisions are often attached to subaqueous permits; a preference for such drilling is included in the November 2005 subaqueous guidelines. VMRC could adopt further rules making this an outright requirement, or the General Assembly could enact legislation establishing such a requirement for offshore energy facilities or directing VMRC to adopt regulations implementing this policy if it were desired to make this a standard requirement.

7. Consider provisions for state review of visual impacts for facilities in state waters.

Currently there is no clear mandate for *state* review for visual and other impacts in Va. waters, such as wind and wave/tide facilities in the Chesapeake Bay. Such issues might be considered under current law by VMRC in connection with subaqueous lands permitting under the authority of its general public interest review, or by the SCC where it has jurisdiction, or for protection of historic viewsheds in some circumstances where there is a historic preservation provision, or on the basis of county government review where land use jurisdiction over the facilities exists. However, there is no clear, consistent, or mandatory basis for such review.⁶³ Virginia should consider whether it would be desirable to adopt legislation or other regulatory measures to guide agencies in their discretionary review. Conversely, Virginia may want to limit or bound the scope of such consideration.

8. Improve coordination with local land use planning and zoning.

The HJR 625 study also recommended that all “on- or near-shore” facilities for natural gas and petroleum must be “consistent with local zoning and land use plans and not conflict with other land uses near the facilities. Facilities should not be located to intrude on areas critical for tourism or military operations in the region.”⁶⁴ Currently, federal environmental impact review comment processes and coastal consistency are the only tools for this coordination. The report concludes that “no new state laws or regulations should be needed to address OCS [oil and gas] development.” Certainly, planning can be improved or facilitated if local governments and Planning District Commissions are engaged in coordination with the Commonwealth through a suitable point of contact to identify issues and likely needs prior to the commencement of any lease sale process. This could be coordinated by DMME, DEQ, the Governor, the Coastal Policy Team, or other suitable entity (See recommendation #1).

9. Enhance the opportunity for environmental review in advance of lease sales on the OCS.

The HJR 625 report endorsed the idea that Virginia and the MMS should engage in an environmental impact study independent of the regular EIS/lease-sale process in order to

⁶³ The reference to the “aesthetic” value of tidal wetlands in Virginia’s wetlands law (Va. Code § 28.2-1301.D) may allow VMRC to adopt regulations relating to visual impacts to tidal wetland resources.

⁶⁴ Secretary of Commerce and Trade, Study of the Possibility of Exploring for Natural Gas in the Coastal Areas of the Commonwealth, House Document No. 22 (2006), at 40.

allow more time for understanding and addressing environmental issues and impacts, modeled on prior experience off Manteo, North Carolina. This is not currently provided for either oil & gas or for alternative energy on the OCS, where in each instance the trigger for environmental impacts review will be the plan for a *lease sale*.⁶⁵ Three possible ways to trigger earlier study would be: (1) seeking appropriated federal funding for a preliminary study (not likely for alternative energy since Virginia has no active proposals and is not in the initial round, but maybe possible for oil & gas); (2) amendment of the state environmental impact assessment law to cover offshore energy development planning and proposals, which may give Virginia more leverage in the federal EIS scoping process; and (3) entering into a Memorandum of Understanding with MMS.

FERC and the state of Oregon entered into a Memorandum of Understanding in March 2008 governing wave energy projects located in state marine waters. The MOU provides for early coordination, joint scheduling, coordination of environmental review, recognition of Oregon's intention to prepare "a comprehensive plan for the siting of wave energy projects in the Territorial Sea of Oregon" and FERC's commitment to consider projects' consistency with the plan, the need to include fish and wildlife protection and mitigation and enhancement.⁶⁶ This is not a direct analogy, as it deals with a federal agency with direct permitting authority in state waters, but does suggest a potential model that may be worth exploring with MMS, and which may enable MMS to engage in environmental study in advance of a proposed lease sale offering.

10. Apply fish/fisheries protection to facility operation as well as construction

Virginia's fishery protection provisions are currently applied by VMRC to construction and operating activities only where there is a subaqueous or similar permit triggering review. There is not currently a state-law vehicle to impose conditions addressing the impacts of offshore platforms on fish species that spend part of their lifecycle on the OCS and part in Virginia waters. VMRC may need to adopt regulations implementing its general regulatory authority not just to regulate fishing and closing or opening certain state waters, but to assure the health of fish and fisheries even when a state permit is not being sought, and to incorporate these provisions into the Virginia Coastal Program as enforceable policies for coastal consistency purposes. This will help ensure that such protections can be incorporated by federal lease conditions on the OCS. This will be important as well to address the impacts and foreseeable impacts of vessels serving LNG facilities.

11. Adopt enforceable provisions to protect birds, bats, fish, and wildlife.

The federal Migratory Bird Treaty Act, Marine Mammal Protection Act, and Endangered Species Act are not always sufficient on their own to address anticipated impacts to living

⁶⁵ Governor Kaine's letter of December 19, 2008 to the MMS concerning the Notice of Intent and Call for Nominations for Lease Sale 220 off Virginia's coast also makes this point. The Virginia Energy Plan and Energy Policy call for federal investigation of natural gas resources 50 miles or more off the coast, rather than endorsing the MMS commencing with a lease sale.

⁶⁶ Memorandum of Understanding between the Federal Energy Regulatory Commission and the State of Oregon (March 2008).

resources from energy facilities such as those proposed for the OCS or in state waters.⁶⁷ Virginia's DGIF has a great deal of expertise that could be used to establish avoidance, monitoring, and adaptive management requirements,⁶⁸ but is dependent upon other state and federal agencies to impose these practices as regulatory requirements (e.g., the Highland Wind project described above). In the OCS context, DGIF has advised MMS to adopt such provisions,⁶⁹ but it has not done so in a systematic way by developing its own suite of enforceable provisions. DGIF currently implements its protections by commenting on permit applications before the VMRC, the SCC, the MMS and other entities with regulatory or decisionmaking authority. DGIF could by regulation adopt requirements for the protection of these resources, or could, alternatively, elect to develop standard guidelines and conditions, and seek to enter into an MOU with MMS assuring that state guidelines will be supplied to lease applicants and implemented. (Similarly, DGIF could identify these conditions and advise SCC that these would ordinarily be applied to those facilities seeking state licensing).

12. Virginia should review its applicable water quality standards for marine waters for Clean Water Act 401 certification.

Water quality standards and designated uses can make a profound difference on federally-licensed activities. For example, Connecticut's narrative water quality standard referring to fish and shellfish uses, coupled with its designation of most of its state marine waters as "habitat for marine fish, other aquatic life and wildlife; shellfish harvesting for direct human consumption; recreation; industrial water supply; and navigation" were sufficient to allow the state to deny water quality certification to a proposed federally-licensed subaqueous gas pipeline based on the dredging, plowing, and backfilling techniques proposed for its installation.⁷⁰ DEQ and the Virginia State Water Control Board should examine Virginia's existing standards for coastal and Bay waters and their designated uses to determine whether they are sufficiently protective for these newly anticipated activities.⁷¹ Such a review could be conducted in conjunction with a coordination process for future energy facilities such as that suggested in recommendation #1.

13. The State Corporation Commission should coordinate with DEQ to assure that the SCC is able to apply environmental standards and conditions that may arise from offshore activities and transmission and support facilities subject to licensing.

⁶⁷ Virginia has its own endangered species program, but this program, which could be incorporated into the Virginia Coastal Program, does not appear to add significantly to the species protections applicable under federal legislation.

⁶⁸ VIMS also has information that could be useful. See also Recommendation #2 above.

⁶⁹ DEQ to MMS, "Draft Environmental Impact Assessment: Alternative Energy and Alternate Uses of Existing Facilities on the Outer Continental Shelf, Proposed Rule, 101GAD30 (DEQ #08-157F)," September 4, 2008 ("Having guidelines in place and presented to lease applicants as part of the wind energy development lease application package would ensure that standardized monitoring occurs..., aid in the site selection process, and help industry understand its role in identifying, minimizing and mitigating for avian resource impacts.") Similar concerns have been identified by DGIF staff in connection with potential offshore wind generation facilities entire in state waters off Tangier Island, where the permitting entities would include VMRC and presumably the Corps of Engineers, and possibly SCC, but not MMS.

⁷⁰ *Islander East Pipeline Co. v. McCarthy*, No. 06-5764-ag (2d. Cir. May 2, 2008).

⁷¹ Va. Code § 62.1-44.15(3a).

Current law provides an environmental review coordination function for DEQ for electric generation facilities, and also provides the SCC with authority to impose environmental conditions not otherwise addressed by permits. DEQ could assist in the process by identifying, in advance of proposals for offshore alternative energy, the kinds of issues that the SCC will need to address and what may or may not be covered by permits (which may include issues of visual impacts, avian and wildlife impacts, and other issues, depending in part upon whether the recommendations above are implemented).⁷² Having the issues identified in advance will assist applicants and the SCC so that there is no argument about whether something is or is not covered by some other permitting scheme, thus streamlining the process while ensuring environmental protection.⁷³

14. VMRC should consider adopting provisions addressing decommissioning, fees, bonds, and similar provisions related specifically to offshore energy and related pipeline and transmission facilities.

VMRC has this authority under existing law, but has not previously had to consider whether OCS natural gas pipelines traversing the entire three mile zone or submerged electric transmission lines, or wind and wave power platforms or anchors in state waters present new issues. VMRC could undertake an evaluation of likely needs or impacts; or the General Assembly could direct it to do so.

15. Make several administrative changes to the Virginia Coastal Program's review processes to anticipate offshore energy proposals and impacts.

Virginia's coastal consistency review depends in part on what activities are and are not listed. Several updates will facilitate Virginia's ability to review offshore activities.

(A) Update the Virginia Coastal Program's energy facilities review process.

Each state's coastal management program must include a review process for energy facilities. This portion of the Virginia Coastal Program is outdated and should be revisited in view of the types of coastal and offshore energy facilities now anticipated. The original provisions rely entirely on federal EIS thresholds, and they do not list newer forms of energy activities, such as offshore *alternative electric power* generation.

Consider seeking NOAA funding to support this update, which should at least –

- Add offshore electric power generation (wind/wave) and transmission facilities regardless of MW capacity
- Add offshore Rights of Way (ROW) and Rights of Use and Easement (RUE) including those which may affect Virginia's territorial waters and coastal zone but do not come ashore in the Commonwealth.
- Identify the approach for review of energy generating facilities in state waters for which a federal EIS may not be prepared
- Consider possible designation/description of a one-stop state application or coordination process for OCS energy proposals.

⁷² DEQ can currently do this on a case-by-case basis, Va. Code §10.1-1186.2:1.B, but doing this in advance could greatly facilitate the coordination and review process.

⁷³ Coordination between the SCC and DEQ may need additional attention for small renewable generation facilities in view of the SCC's proposal to eliminate the submission of an application for generating facilities under 5MW capacity. Small wind power projects may fall below this threshold (such as the proposed Tangier Island offshore wind proposal).

The content of such an update may depend upon the adoption of recommendations above, including recommendations #1, 7, 8, 12, or alternatives.

(B) Revise Virginia's coastal consistency lists

Virginia's coastal program currently states that an OCS plan submitted to the Secretary of Interior requires a consistency determination.⁷⁴ Virginia is likely to rely on this item in order to assure that it is entitled to sufficient review of MMS energy-related activities on the OCS. However, federal regulations advise states to *list* activities subject to coastal consistency under three circumstances: federal activities, federal permits and licenses, and OCS activities. Federal regulations further provide that "management program lists required pursuant to §930.53 shall include a reference to OCS plans which describe *in detail* federal license or permit activities affecting any coastal resource."⁷⁵ Currently Virginia only lists MMS "permits for pipeline rights-of-way" for oil and gas on the OCS but *not* rights-of-way for electricity transmission in Table 2 (federal licenses and permits); and it does not list any MMS development actions in Table 1 (federal actions). It may be helpful for Virginia to list additional activities (and particularly electrical ROW/RUE) in order to ensure consultation, and to eliminate any issue as to whether a given activity is believed to have "any reasonably foreseeable effect" on Virginia's coastal zone.⁷⁶ This may be particularly helpful to ensure that Virginia obtains consistency review for facilities that *do not* traverse Virginia territorial waters.

⁷⁴ This is in accordance with 16 U.S.C. § 1456(c)(3)(B).

⁷⁵ 15 CFR 930.74 (Subpart E).

⁷⁶ MMS has proposed that a competitive lease sale or ROW/RUE grant for alternative energy is "federal activity" for consistency under 15 CFR 930 subpart C; and a noncompetitive lease sale or grant is a nonfederal activity that requires a license or permit for consistency per 15 CFR 930 subpart D. 73 Fed. Reg. at 39388.